



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,816	06/16/2000	Jonas Andersson	040071-079	1951

21839 7590 04/18/2003

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

CHIANG, JACK

ART UNIT	PAPER NUMBER
----------	--------------

2642

7

DATE MAILED: 04/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/594816

Applicant(s)

J. Andersson

Examiner

J. Ching

Group Art Unit

2642

#7

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE -3- MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 3-4-03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-19 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-19 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

CLAIMS

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 3, 5-11, 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Warnke (US 2109761).

Regarding claim 1, Warnke shows:

A driver (4-7);

An acoustic horn (2 or 31-32) having an acoustic impedance matched with impedances of an ear and the driver in order for the user to put the horn against the user's ear.

Regarding claim 5, Warnke shows:

An acoustic horn (2 or 31-32) having an acoustic impedance matched with impedances of an ear and the driver in order for the user to put the horn against the user's ear.

Regarding claim 7, Warnke shows:

A body (figs. 1 or 3);

A driver (4-7);

An acoustic horn (2 or 31-32) having an acoustic impedance matched with impedances of an ear and the driver in order for the user to put the horn against the user's ear, a large end of the horn (i.e. 29) extending to a position proximate an exterior surface of the body (see figs. 1 or 3).

Regarding claims 3, 6, 8-11, 13-15, Warnke shows:

The horn and its impedance matching (see comments in claim 1);

A driving membrane (4);

The horn can be integrally formed with the body (see figs. 1 or 3);

The telephone body (figs. 1 or 3) having an elongated shape;

A microphone (below 28).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warnke.

Regarding claims 4 and 12, Warnke shows a speaker assembly which usually have a membranes (i.e. 1302).

Warnke differs from the claimed invention in that it does not explicitly mention that the membranes has a diameter less than 1 mm.

However, from the present specification, pages 5 last paragraph, it discloses that the diameter of the membranes can be ranging from 1mm to 5mm, or even larger. In other words, there is no teaching of criticality for the specific claimed 1mm. Therefore, it would have been obvious for one skilled in the art to use any speaker technology, including the 1mm-diameter membranes, in Warnke, as long as the basic concept of providing an acoustic frequency response that is substantially efficient within the practice of the phone operation (page 2, right col. lines 1-9 in Warnke).

5. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warnke in view of Yoshimoto (US 6381126)

Regarding claims 16-19, Warnke shows the speaker assembly with a phone device.

Warnke differs from the claimed invention in that it does not explicitly mention the application of the speaker assembly with devices like a PC, pager and PDA.

However, it is commonly seen that today's electronic device have multiple functions, such as a phone having a PC, pager and PDA functions etc., or phones, PC, pagers and PDA having a speaker function. This is shown by Yoshimoto (col. 8, lines 17-25). Further, from the various applications claimed in the present application, such as the phone, PC, PDA, pager etc., it can also be seen that there is no teaching of criticality for any one particular environment. Therefore,

it would have been obvious for one skilled in the art to use Warnke's speaker design concept in the phone, or PC, or PDA etc. with/without the teaching of Yoshimoto. This is simply an intended use of Warnke's speaker concept because a phone having a PC or PDA function would not change the operation of the speaker function.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Warnke in view of Rabe (US 5963640).

Regarding claim 2, Warnke shows a speaker assembly (4, 2).

Warnke differs from the claimed invention in that it does not show a plate having holes.

However, it is commonly seen speaker assembly having a face plate having holes. This is taught by Rabe, such as element 32. The idea of having a face plate for an electronic device, including a speaker, is to prevent foreign substance to pass into the device. Therefore, it would have been obvious for one skilled in the art to modify Warnke with a plate as taught by Rabe, this is a common practice which functions to protect the device as it is well known for one skilled in the art.

7. Claims 1-3, 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Rabe (US 5963640).

Regarding claim 1, Rabe shows:

A driver (24);

An acoustic horn (34, see fig. 5) having an acoustic impedance matched with impedances of an ear and the driver in order for the user to put the horn against the user's ear.

Regarding claim 5, Rabe shows:

An acoustic horn (34) having an acoustic impedance matched with impedances of an ear and the driver in order for the user to put the horn against the user's ear.

Regarding claims 2-3, 6, Rabe shows:

The horn and its impedance matching (see comments in claim 1);

A driving membrane (in speaker 24);

A plate having one or more holes (see 32);

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabe.

Regarding claim 4, Rabe shows a speaker assembly which usually have a membranes (i.e. in 24).

Rabe differs from the claimed invention in that it does not explicitly mention that the membranes has a diameter less than 1 mm.

However, from the present specification, pages 5 last paragraph, it discloses that the diameter of the membranes can be ranging from 1mm to 5mm, or even larger. In other words, there is no teaching of criticality for the specific claimed 1mm. Therefore, it would have been obvious for one skilled in the art to use any speaker technology, including the 1mm-diameter membranes, in

Rabe, as long as the basic concept of providing an acoustic frequency response that is substantially efficient within the practice of the phone operation.

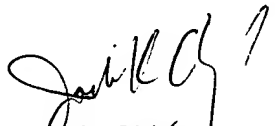
ARGUMENT

10. In response to the remarks (pages 1-3), including the definition provided by applicant, Clark is withdrawn. Therefore, no further discussion is made regarding Clark. Argument is answered in the rejections above.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Chiang whose telephone number is 703-305-4728. The examiner can normally be reached on Mon.-Fri. from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.


Jack Chiang
Primary Examiner
Art Unit 2642